

	Target (in MW)	Achievement (in MW)	% Achievement
8th Plan	2810	1430	50.88
9th Plan	17588	5061	28.77
10th Plan	7121	3455*	48.52

\* Likely achievement during the Xth plan of which 1931 MW has already commissioned.

(b) Constraints in achievement of the plan and remedial measures taken thereof:

- (i) The major constraints faced by the Independent Power Producers (IPPs) due to which they failed to achieve the target have been:
  - failure to obtain environmental clearances
  - financial constraints faced by the promoters
  - land acquisition and resettlement and rehabilitation issues
  - failure to obtain fuel linkages
  - failure to conclude Power Purchase Agreements, etc.
- (ii) An Inter Institutional Group (IIG) comprising of senior representatives from the Financial Institutions and Ministry of Power has been constituted in January, 2004 to specially focus on fast track private power projects which could be taken up for early commissioning and could achieve early financial closure. 16 private power projects having a total capacity of about 7320 MW have since achieved financial closure and another 7 projects with a total capacity of 9357 MW are being monitored by the IIG for facilitating early financial closure.

### **Production of energy through NCES**

2042. SHRI LALIT KISHORE CHATURVEDI:  
DR. GYAN PRAKASH PILANIA:

Will the Minister of POWER be pleased to state:

(a) the quantum of energy produced, jointly by non-conventional and conventional energy sources, and the proportion of contribution of each segment, and each source;

(b) the total energy requirement of country, and its futuristic projection, and Government's road-map to meet the demand;

(c) the per mega watt expenditure incurred in the production, by each type of different sources of energy;

(d) the fuels required for each of above different types of sources of energy and whether they are easily and plentifully available in the country; and

(e) the conclusions Government arrive at from above statistics and the action plan in their light?

**THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE):** (a) The total quantum of energy produced jointly by non-conventional and conventional energy sources during 2005-06 was 631539.32 MUs and the proportion of contribution of hydro, thermal, nuclear and renewable energy sources was 15.82%, 79.15%, 2.74% and 2.30% respectively.

(b) Projection of peak demand of power and energy requirement in the country, as per 16th Electric Power Survey is given below:-

Year	Electrical Energy Requirement (MU)	Peak Electric Load (MW)
2006-07	719,097	115,705
2011-12	975,222	157,107
2016-17	1,318,644	212,725

(c) The typical per MW capital cost of generating units of different types is given below:—

Project Type	Greenfield Projects (Cost in Rs. Cr/MW)	Expansion Projects (Cost in Rs. Cr/MW)
<b>Hydro</b>		
Run of River	4.5	
Dam Storage	5.0	
Pum Storage	3.5	
<b>Thermal</b>		
Coal	3.5	3.0
Lignite	4.5	4.0
CCGT	2.62	2.36

Average cost per MW of wind power, small hydro projects and biomass power ranges from Rs. 3 to 5 crores.

(d) The gap between the requirement and supply of coal for power generation during Tenth Plan is being bridged through import. As against the projected requirement of 537 million tonne (MT) of coal to achieve the targeted generation in the terminal year of eleventh Plan i.e. 2011-12, the availability of coal from domestic sources has been indicated by the Ministry of Coal as 478 MT. The deficit is planned to be met through import of coal.

The domestic production and supply of gas is not keeping pace with the growing demand of gas in the country. Against the present requirement of about 53 Million Metric Standard Cubic Metre per days (MMSCMD) of gas, the average supply for the period April-September 2006, has been about 33 MMSCMD. To overcome the shortage of gas for power generation, Ministry of Petroleum and Natural Gas is taking necessary steps to increase availability of gas from domestic sources by awarding gas blocks for exploration and production as well as import of LNG and natural gas through international gas pipeline.

There has not been any report of shortage of Naptha and other liquid fuels being used for generation of power. However, their use is restricted on account of high cost of generation based on these fuels.

(e) The capacity addition programme in eleventh Plan is being planned keeping in view the per megawatt cost of installation and availability and price of fuel. As the position about anticipated availability of gas and its price is not yet clear, limited generation capacity based on gas has presently been envisaged for implementation during eleventh Plan.

#### **Inter-region power transmission**

†2043. SHRI RAM JETHMALANI:

DR. MURLI MANOHAR JOSHI:

Will the Minister of POWER be pleased to state:

(a) whether it is a fact that low capacity inter-region power transmission in the country has forced stopping of power generation in many projects;

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†Original notice of the question was received in Hindi.